

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REGION 5 CHICAGO REGIONAL LABORATORY

### 536 SOUTH CLARK STREET CHICAGO, ILLINOIS 60605



Date:

7/18/2017

Subject:

Review of Region 5 Data for Mid America Steel Drum, Inc.

To:

RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard

Chicago, IL 60604

From:

Francis Awanya, Chemist

**US EPA Region 5 Chicago Regional Laboratory** 

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

x Frans A Awanga 7/18/2017

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Mid America Steel Drum, Inc.

Data Coordinator and Date Transmitted

Analyses included in this report:

Ignitability by Setaflash

Page 1 of 8

Report Name: 1705002,1705003,1705004 FINAL Jul 18 17 1109



536 South Clark Street, Chicago, IL 60605 Phone:(312)353-8370 Fax:(312)886-2591

RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604 Project: Mid America Steel Drum, Inc. Project Number: MASD 05-04-17 Project Manager: Jamie Paulin

Reported: Jul-18-17 11:09

### **Analysis Case Narrative**

### **General Information**

Samples for the above project were received at the Chicago Regional Laboratory on 5/5/2017. The samples were logged in the CRL LIMS for Ignitability by Setaflash on 5/8/2017 under Work Order Numbers 1705002, 1705003, and 1705004 respectively. Twenty-four (24) of those samples were analyzed for Ignitability by Setaflash using Standard Operating Procedure (SOP) CRL Document# AIG048A Version# 4 (Based on EPA SW-846 Method 1020B). Samples 1705002-13 (Field Sample Name OCS-12), 1705004-09 (Field Sample Name OCS-09), and 1705004-10 (Field Sample Name OCS-10) are solids and were not analyzed. Sample 1705002-05 (Field Sample Name OCS-02) solidified and similarly could not be analyzed. Samples 1705003-03 (Field Sample Name CS-03), 1705003-07 (Field Sample Name CS-07), and 1705004-01(Field Sample Name SFS01) could not be analyzed for Ignitability by Setaflash because the containers were empty. The designated analyst is Francis Awanya. Francis can be reached at 312-886-3682. Other pertinent information and dates are provided in the final analysis report. Holding time does not apply to these samples.

Supporting data archived under Work Order Number: 1705002.

### Sample Analysis and Results

The lowest attainable temperature was reported for samples 1705002-04 (Field Sample Name OCS-04) and 1705002-09 (Field Sample Name OCS-09). Both samples clearly flashed at the reported temperatures. But the tests could not be conducted at 9 °F lower than the reported flash temperatures because the target values were below what could be read on the instrument thermometer and the practical limit was reached.

A result is reported as No Flash (NF) when it is established that the sample is not ignitable at or below 140 °F. The data reported herein meets the requirements of the CRL analytical SOP used for analysis and the "Land and Chemicals Division Generic Quality Assurance Project Plan for Field Sampling Events" at Mid-America Drum Company, Inc. The Quality Assurance Project Plan (QAPP) is archived in the CRL share drive as "Mid America Steel Drum QAPP".

### **Quality Control**

All required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.

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Report Name: 1705002,1705003,1705004 FINAL Jul 18 17 1109



536 South Clark Street, Chicago, IL 60605 Phone:(312)353-8370 Fax:(312)886-2591

RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604 Project: Mid America Steel Drum, Inc.

Project Number: MASD 05-04-17 Project Manager: Jamie Paulin Reported: Jul-18-17 11:09

### ANALYTICAL REPORT FOR SAMPLES

OCS-01         1705002-01         Other         May-04-17 12:55         May-05-17 07:50           OCS-02         1705002-02         Other         May-04-17 13:11         May-05-17 07:50           OCS-03         1705002-03         Other         May-04-17 13:35         May-05-17 07:50           OCS-04         1705002-04         Other         May-04-17 14:37         May-05-17 07:50           OCS-06         1705002-07         Other         May-04-17 14:37         May-05-17 07:50           OCS-07         1705002-08         Other         May-04-17 15:01         May-05-17 07:50           OCS-09         1705002-09         Other         May-04-17 15:12         May-05-17 07:50           OCS-10         1705002-10         Other         May-04-17 15:20         May-05-17 07:50           OCS-10         1705002-11         Other         May-04-17 15:20         May-05-17 07:50           OCS-10         1705002-12         Other         May-04-17 15:20         May-05-17 07:50           OCS-10         1705002-12         Other         May-04-17 15:33         May-05-17 07:50           OCS-10         1705003-01         Other         May-04-17 13:32         May-05-17 07:50           CS-01         1705003-02         Other         May-04-17 13:02	Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OCS-03         1705002-03         Other         May-04-17 13:35         May-05-17 07:50           OCS-04         1705002-04         Other         May-04-17 14:10         May-05-17 07:50           OCS-06         1705002-06         Other         May-04-17 14:37         May-05-17 07:50           OCS-07         1705002-07         Other         May-04-17 14:50         May-05-17 07:50           OCS-08         1705002-08         Other         May-04-17 15:10         May-05-17 07:50           OCS-09         1705002-09         Other         May-04-17 15:12         May-05-17 07:50           OCS-10 DUP         1705002-10         Other         May-04-17 15:20         May-05-17 07:50           OCS-11         1705002-11         Other         May-04-17 15:20         May-05-17 07:50           OCS-10 DUP         1705002-12         Other         May-04-17 15:20         May-05-17 07:50           OCS-11         1705003-01         Other         May-04-17 15:37         May-05-17 07:50           CS-02         1705003-02         Other         May-04-17 13:48         May-05-17 07:50           CS-03         1705003-04         Other         May-04-17 13:12         May-05-17 07:50           CS-04         1705003-05         Other         May-04-17 13:12	OCS-01	1705002-01	Other	May-04-17 12:55	May-05-17 07:50
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SFS02       1705004-02       Other       May-04-17 13:20       May-05-17 07:50         SFS03       1705004-03       Other       May-04-17 13:31       May-05-17 07:50         SFS04       1705004-04       Other       May-04-17 13:39       May-05-17 07:50         SFS06       1705004-05       Other       May-04-17 13:55       May-05-17 07:50         SFS07       1705004-06       Other       May-04-17 14:03       May-05-17 07:50	CS-06	1705003-06	Other	May-04-17 13:29	May-05-17 07:50
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SFS04       1705004-04       Other       May-04-17 13:39       May-05-17 07:50         SFS06       1705004-05       Other       May-04-17 13:55       May-05-17 07:50         SFS07       1705004-06       Other       May-04-17 14:03       May-05-17 07:50	SFS02	1705004-02	Other	May-04-17 13:20	May-05-17 07:50
SFS06 1705004-05 Other May-04-17 13:55 May-05-17 07:50 SFS07 1705004-06 Other May-04-17 14:03 May-05-17 07:50	SFS03	1705004-03	Other	May-04-17 13:31	May-05-17 07:50
SFS07 1705004-06 Other May-04-17 14:03 May-05-17 07:50	SFS04	1705004-04	Other	May-04-17 13:39	May-05-17 07:50
	SFS06	1705004-05	Other	May-04-17 13:55	May-05-17 07:50
SFS08 1705004-07 Other May-04-17 15:10 May-05-17 07:50	SFS07	1705004-06	Other	May-04-17 14:03	May-05-17 07:50
	SFS08	1705004-07	Other	May-04-17 15:10	May-05-17 07:50



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RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604 Project: Mid America Steel Drum, Inc.

Project Number: MASD-05-04-17 Project Manager: Jamie Paulin Reported: Jul-18-17 11:09

SFS09

1705004-08

Other

May-04-17 15:23 May-05-17 07:50



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RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604 Project: Mid America Steel Drum, Inc.

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## Ignitability, Flash Point, EPA 1020B (modified) US EPA Region 5 Chicago Regional Laboratory

OCS-01 (1705002-01)	, , , , , , , , , , , , , , , , , , ,	Matrix: Other Sampled: May-04-17 12:55 Received: May-05-17 07:						7:50	
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ignitability by Flashpoint	72				Degrees F	1	B17E043	Jun-15-17	Jun-15-17
OCS-02 (1705002-02)	N	Matrix: Other	Sa	ımpled: M	ay-04-17 1	3:11	Received: N	May-05-17 (	7:50
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ignitability by Flashpoint	129				Degrees F	1	B17E043	Jun-09-17	Jun-09-17
OCS-03 (1705002-03)	Ŋ	Matrix: Other	Sa	ampled: M	ay-04-17	13:35	Received: I	VIay-05-17 (	7:50
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ignitability by Flashpoint	115				Degrees F	1	B17E043	Jun-15-17	Jun-15-17
OCS-04 (1705002-04)	I	Matrix: Other	Sa	ımpled: M	ay-04-17	14:10	Received: 1	May-05-17 (	7:50
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ignitability by Flashpoint	46				Degrees F	1	B17E043	Jun-14-17	Jun-14-17
OCS-06 (1705002-06)		Matrix: Other	Sa	ampled: M	ay-04-17	14:37	Received: 1	May-05-17 (	07:50
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
-	Result No Flash	Ψ.	MDL		Units Degrees F	Dilution 1	Batch B17G013	Prepared Jul-06-17	Analyzed Jul-06-17
Ignitability by Flashpoint	No Flash	Qualifiers  Matrix: Other	***************************************		Degrees F	ī	B17G013		Jul-06-17
Ignitability by Flashpoint	No Flash	Qualifiers	***************************************	Limit	Degrees F	ī	B17G013	Jul-06-17	Jul-06-17
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte	No Flash	Qualifiers  Matrix: Other Flags/	Sa	Limit  ampled: M  Reporting	Degrees F	14:50	B17G013  Received: 1	Jul-06-17 <b>May-05-17</b> (	Jul-06-17 07:50
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte Ignitability by Flashpoint	No Flash Result	Qualifiers  Matrix: Other Flags / Qualifiers  Matrix: Other	Sa MDL	Limit  ampled: M  Reporting	Degrees F  ay-04-17  Units Degrees F	1 14:50 Dilution	B17G013  Received: 1  Batch B17E043	Jul-06-17  May-05-17 (	Jul-06-17  07:50  Analyzed  Jun-15-17
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte Ignitability by Flashpoint	No Flash Result	Qualifiers  Matrix: Other Flags / Qualifiers	Sa MDL	Limit  ampled: M  Reporting Limit	Degrees F  ay-04-17  Units Degrees F	1 14:50 Dilution	B17G013  Received: 1  Batch B17E043	Jul-06-17  May-05-17 (  Prepared  Jun-15-17	Jul-06-17  07:50  Analyzed  Jun-15-17
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte Ignitability by Flashpoint  OCS-08 (1705002-08)  Analyte	No Flash Result 124	Qualifiers  Matrix: Other Flags / Qualifiers  Matrix: Other Flags /	Sa MDL	Ampled: M Reporting Limit  ampled: M Reporting	Degrees F  ay-04-17  Units Degrees F  ay-04-17	1 14:50  Dilution  1 15:01	Batch B17E043  Received:	Jul-06-17  May-05-17 (  Prepared  Jun-15-17  May-05-17 (	Jul-06-17  07:50  Analyzed Jun-15-17  07:50
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte Ignitability by Flashpoint  OCS-08 (1705002-08)  Analyte Ignitability by Flashpoint	Result 124 Result 60	Qualifiers  Matrix: Other Flags / Qualifiers  Matrix: Other Flags / Qualifiers	Sa MDL Sa MDL	Ampled: M Reporting Limit  ampled: M Reporting	Degrees F  units Degrees F  ay-04-17  Units Degrees F  Degrees F	1 14:50  Dilution 1 15:01  Dilution 1	Batch Batch Breceived:  Batch Breceived:  Batch Batch Batch	Jul-06-17  May-05-17 ( Prepared Jun-15-17  May-05-17 ( Prepared	Jul-06-17  07:50  Analyzed Jun-15-17  07:50  Analyzed Jun-13-17
Ignitability by Flashpoint  OCS-07 (1705002-07)  Analyte Ignitability by Flashpoint  OCS-08 (1705002-08)	Result 124 Result 60	Qualifiers  Matrix: Other Flags / Qualifiers  Matrix: Other Flags / Qualifiers	Sa MDL Sa MDL	Ampled: M Reporting Limit  Ampled: M Reporting Limit	Degrees F  units Degrees F  ay-04-17  Units Degrees F  Degrees F	1 14:50  Dilution 1 15:01  Dilution 1	Batch Batch Breceived:  Batch Breceived:  Batch Batch Batch	Jul-06-17  May-05-17 ( Prepared Jun-15-17  May-05-17 (  Prepared Jun-13-17	Jul-06-17  07:50  Analyzed Jun-15-17  07:50  Analyzed Jun-13-17



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RCRA, LCD, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604 Project: Mid America Steel Drum, Inc.

Project Number: MASD-05-04-17 Project Manager: Jamie Paulin Reported:

Jul-18-17 11:09

## Ignitability, Flash Point, EPA 1020B (modified) US EPA Region 5 Chicago Regional Laboratory

0 (1705002-10)	N	fatrix: Other	Si		ay-04-17 1	5:20	Received: 1	viay-05-17	v/:5V	
>	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
ility by Flashpoint	63				Degrees F	1	B17E043	Jun-19-17	Jun-19-17	
0 DUP (1705002-11)	Matrix: O		other Sampled: May-0		ed: May-04	4-17 15:20 Rec		eived: May-05-17 07:		
	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
ility by Flashpoint	64			4311133	Degrees F	1	B17E043	Jun-21-17	Jun-21-17	
1 (1705002-12)	M	latrix: Other	Sa	ampled: M	ay-04-17 1	5:37	Received: I	May-05-17 (	7:50	
	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
ility by Flashpoint	47				Degrees F	1	B17E043	Jun-14-17	Jun-14-17	
(1705003-01)	Matrix: Other		San	npled: Ma	y-04-17 11:	48 R	Received: May-05-17 07:50			
7	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
ility by Flashpoint	No Flash		na manna muse levelell van bese le		Degrees F	1.	B17G013	Jul-06-17	Jul-06-17	
(1705003-02)	Matrix: Other		San	npled: Ma	y-04-17 12:	31 R	Received: May-05-17 07:50			
		Flags /	N/DY	Reporting		Park Line	TO CASE.	Thinking	Augustaus a	
ility by Flashpoint	Result No Flash	Qualifiers	MDL	Limit	Units Degrees F	Dilution 1	Batch B17E043	Prepared Jun-12-17	Analyzed Jun-12-17	
						Carrier Atom				
(1705003-04)	Ma	trix: Other	San	npled: Mag	y-04-17 13:	02 R	eceived: M	ay-05-17 07	:50	
6.	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
ility by Flashpoint	131				Degrees F	1	B17E043	Jun-21-17	Jun-21-17	
	Matrix: Other		Sampled: May-04-17 13:12			Received: May-05-17 07:50				
(1705003-05)		Flags /	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
(1705003-05)	Result	Qualifiers			Degrees F	1	B17E043	Jun-29-17	Jun-29-17	
And the second s	Result No Flash	Qualifiers			~			Received: May-05-17 07:50		
	No Flash	Qualifiers trix: Other	San	npled: Ma	y-04-17 13:	29 R	eceived: M	ay-05-17 07	:50	
ility by Flashpoint	No Flash		San MDL	Reporting		29 R	Batch	ay-05-17 07	:50 Analyzed	
ility by Flashpoint (1705003-06)	No Flash Ma	trix: Other	***************************************		y-04-17 13:		aliani minimi menungga puntiboas			



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## Ignitability, Flash Point, EPA 1020B (modified) US EPA Region 5 Chicago Regional Laboratory

CS-08 (1705003-08)	Matrix: Other		Sampled: May-04-17 14:15				Received: May-05-17 07:50			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	123				Degrees F	1	B17E043	Jun-16-17	Jun-16-17	
SFS02 (1705004-02)	Ma	trix: Other	Sampled: May-04-17 13:20			20 R	0 Received: May-05-17 07:50			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	No Flash	WILLIAM OUT THE STATE OF THE ST		3000044ED34084400099E0000EE930000000000000	Degrees F	J.	B17E043	Jun-29-17	Jun-29-17	
SFS03 (1705004-03)	Ma	trix: Other	Sampled: May-04-17 13:31				Received: May-05-17 07:50			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	No Flash				Degrees F	I.	B17E043	Jul-05-17	Jul-05-17	
SFS04 (1705004-04)	Ma	Matrix: Other		Sampled: May-04-17 13:39 Received: May-05-17 07:50						
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	51				Degrees F	ana i	B17E043	Jul-05-17	Jul-05-17	
SFS06 (1705004-05)	Ma	trix: Other	San	npled: Ma	y-04-17 13	:55 R	eceived: M	ay-05-17 07	<b>':</b> 50	
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	51.				Degrees F	1	B17E043	Jul-05-17	Jul-05-17	
SFS07 (1705004-06)	Ma	Matrix: Other		Sampled: May-04-17 14:03			Received: May-05-17 07:50			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Ignitability by Flashpoint	61				Degrees F	1	B17E043	Jul-05-17	Jul-05-17	
SFS08 (1705004-07)	Ma	Matrix: Other		Sampled: May-04-17 15:10			Received: May-05-17 07:50			
X (2. 2 To 24 C)		Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	
Analyte	Result	Quantities				www.downoodora.co.co.co.co.co.co.co.co.co.co.co.co.co.	B17G013	Jul-06-17	Jul-06-17	
Ignitability by Flashpoint	Result No Flash	Qualifiers			Degrees F	1	D1/0013	Jui-00-17		
Ignitability by Flashpoint	No Flash	trix: Other	Sar	npled: Ma	Degrees F y-04-17 15			ay-05-17 0		
	No Flash		<b>Sar</b> MDL	npled: Ma Reporting Limit						



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### **Notes and Definitions**

NF

No Flash

U

Not Detected

NR

Not Reported

Q

QC limit Exceeded